

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**5    Listing of Claims:**

Claims 1-12 (cancelled)

Claim 13 (currently amended): A method for generating a linked list corresponding to a memory in an electronic device, comprising:

- 10    (a) forming a linked list for the memory, wherein each entry of the linked list corresponds to a portion of the memory;
- (b) performing a built-in self test (BIST) on the memory to identify a first defective portion of the memory; and
- 15    (c) updating the linked list to remove from the linked list the entry of the linked list corresponding to the identified first defective portion of the memory before the memory is completely examined by the BIST.

- 20    Claim 14 (previously presented): The method of claim 13, wherein the memory being tested in step (b) is used for storing the linked list, and step (c) comprises:
- excluding the use of the defective portion of the memory in storing the linked list.

- 25    Claim 15 (previously presented): The method of claim 13, wherein the memory being tested in step (b) is a packet buffer for data storage.

Claim 16 (cancelled)

- 30    Claim 17 (currently amended): The method of claim ~~[[16]]~~13, further comprising:

- (d) after performing step (c) of updating, continuing the BIST in  
step (b) to identify a second defective portion of the memory;  
and  
(e) updating the linked list to remove from the linked list the entry  
5 of the linked list corresponding to the identified second  
defective portion of the memory.

Claim 18 (previously presented): The method of claim 17, wherein the  
electronic device comprising the memory is a network switch.

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Claim 19 (currently amended): A method for generating a linked list  
corresponding to a memory in an electronic device, comprising:  
forming a linked list for the memory, wherein the linked list  
comprises a plurality of entries each having a first pointer  
15 field and a second pointer field, the first pointer field for  
storing a pointer to a corresponding portion of the memory and  
the second pointer field for storing a pointer to another entry  
of the linked list;  
performing a built-in self test (BIST) on the memory to identify at  
20 least one defective portion of the memory; and  
updating the linked list to remove from the linked list the entry of  
the linked list corresponding to the identified defective portion  
of the memory, so that none of the entries of the updated  
linked list comprises a pointer in the second pointer field that  
25 points to the entry corresponding to the identified defective  
portion;  
wherein the step of updating the linked list is performed before the  
memory is completely examined by the BIST.

30 Claim 20 (previously presented): The method of claim 19, wherein the  
electronic device comprising the memory is a network switch.

Claim 21 (previously presented): The method of claim 19, wherein the memory being tested in the BIST step is a packet buffer for data storage.

- 5 Claim 22 (previously presented): A method for generating a linked list corresponding to a memory, comprising:
- (a) forming a linked list for the memory, wherein the linked list comprises a plurality of entries each having a first pointer field and a second pointer field, the first pointer field for  
10 storing a pointer to a corresponding portion of the memory and the second pointer field for storing a pointer to another entry of the linked list;
  - (b) performing a built-in self test (BIST) on the memory to identify a first defective portion of the memory;
  - 15 (c) updating the linked list to remove from the linked list the entry of the linked list corresponding to the identified first defective portion of the memory;
  - (d) after step (c) is completed, continuing the BIST to identify a second defective portion of the memory; and
  - 20 (e) updating the linked list to remove from the linked list the entry of the linked list corresponding to the identified second defective portion of the memory.

25 Claim 23 (new): The method of claim 22, wherein the memory is a packet buffer for data storage.

Claim 24 (new): The method of claim 22, wherein step (b) comprises:  
pausing the BIST when the first defective portion of the memory is  
identified.

30 Claim 25 (new): A method for generating a linked list corresponding to a memory, comprising:

forming a linked list for the memory, wherein the linked list comprises a plurality of entries each having a first pointer field and a second pointer field, the first pointer field for storing a pointer to a corresponding portion of the memory and the second pointer field for storing a pointer to another entry of the linked list;

performing a built-in self test (BIST) on the memory; and each time a defective portion is found in the memory by the BIST, pausing the BIST, updating the linked list to remove an entry corresponding to the defective portion of the memory from the linked list, and then continuing the BIST on remaining portions of the memory.

Claim 26 (new): The method of claim 25, wherein the memory is a packet buffer for data storage.